

5 What is claimed is:

1. A system to structure and manage a configuration of an industrial product, taking account of options selected by a customer, comprising:

means for processing for describing a set of technical objects, each technical object either representing a product function or describing an implementation method
10 for making a product configuration for the product function, the set of technical objects representing manufacturing options of the industrial product;

means for storing to be updated for clarifying a definition of each technical object and its inter-relations with other of the technical objects in the product configuration by an expression of rules and constraints; and

15 means for data input and means for displaying for interactively and dynamically using said means for storing during definition of the product, through the selection of the options by the customer.

2. A system according to claim 1, wherein each technical object represents
20 either a function of an aircraft or describes an implementation method of the aircraft function to create an aircraft configuration.

3. A system according to claim 1, wherein the means for processing comprises:

25 a knowledge management module;
a contract management module;
an administration module; and
a mass management module;
all working on the means for storing.

30

4. A system according to claim 3,
wherein the knowledge management module is configured to manage technical objects each representing an aircraft function,

5 wherein the contract management module is configured to manage fleet configurations of aircraft;

 wherein the administration module is configured to manage user profiles, and

 wherein the mass management module is configured to manage mass of a customized configuration from data supplied from the contract management module.

10

5. A system according to claim 1, wherein the industrial product is considered as a set of functions in a functional approach.

15

6. A system according to claim 3, wherein the contract management module works in a connected or disconnected mode.

20

7. A system according to claim 1, wherein in the means for processing a technical object oriented configuration is used in which the options and corresponding implementation methods are selected directly in a list sorted by at least one of ATA chapter, job category, and sales policy, the selection being made either individually or globally using a global procedure that joins a possible application and a weight to a set of options in a same functional domain.

25

8. A system according to claim 1, wherein in the means for processing a functional oriented configuration is used that supplies a functional approach to directly select technical objects, specifying required properties of a functional characteristic.

30

9. A system according to claim 1, wherein the means for processing allows a contract manager to start a configuration checking process at any time.

10. A system according to claim 1, wherein the industrial product is an aircraft.

5

✓

11. A system to structure and manage a configuration of an industrial product, taking account of options selected by a customer, comprising:

10 a processor configured to describe a set of technical objects, each technical object either representing a product function or describing an implementation method for making a product configuration for the product function, the set of technical objects representing manufacturing options of the industrial product;

a database to be updated for clarifying a definition of each technical object and its inter-relations with other of the technical objects in the product configuration by an expression of rules and constraints; and

15 a data input and display for interactively and dynamically using said database during definition of the product, through selection of the options by the customer.

12. A system according to claim 11, wherein each technical object represents either a function of an aircraft or describes an implementation method of the aircraft
20 function to create an aircraft configuration.

13. A system according to claim 11, wherein the processor comprises:
a knowledge management module;
a contract management module;
25 an administration module; and
a mass management module;
all working on the database.

14. A system according to claim 13,
30 wherein the knowledge management module is configured to manage technical objects each representing an aircraft function,
wherein the contract management module is configured to manage fleet configurations of aircraft;

5 wherein the administration module is configured to manage user profiles, and
 wherein the mass management module is configured to manage mass of a
customized configuration from data supplied from the contract management module.

15 15. A system according to claim 11, wherein the industrial product is
10 considered as a set of functions in a functional approach.

16. A system according to claim 13, wherein the contract management
module works in a connected or disconnected mode.

15 17. A system according to claim 11, wherein in the processor a technical
object oriented configuration is used in which the options and corresponding
implementation methods are selected directly in a list sorted by at least one of ATA
chapter, job category, and sales policy, the selection being made either individually or
globally using a global procedure that joins a possible application and a weight to a
20 set of options in a same functional domain.

18. A system according to claim 11, wherein in the processor a functional
oriented configuration is used that supplies a functional approach to directly select
technical objects, specifying required properties of a functional characteristic.

25

19. A system according to claim 11, wherein the processor allows a contract
manager to start a configuration checking process at any time.

20. A system according to claim 11, wherein the industrial product is an
30 aircraft.